

IN THE CLAIMS

Please amend the claims as indicated below:

1. **(Currently Amended)** An acoustic transducer assembly comprising:
a substrate having a topside and a backside;
a microfabricated acoustic transducer formed on the topside of the substrate; and
a damping material disposed on the backside of the substrate, the damping material
having an acoustic impedance substantially equal to that of the substrate and
suppressing substrate acoustic modes.
2. **(Currently Amended)** An apparatus according to claim 1 wherein:
the damping material is lossy; and has an
the acoustic impedance of the damping material ~~that is similar to the acoustic impedance~~
of the substrate that of silicon and is lossy.
3. **(Original)** An apparatus according to claim 1 further including electronic circuits formed in the substrate.
4. **(Currently Amended)** An apparatus according to claim 3 wherein the electronics circuits are in between the ~~sensor~~ transducer and the damping material.
5. **(Original)** An apparatus according to claim 1 wherein the substrate is a wafer.
6. **(Original)** An apparatus according to claim 1 wherein the damping material suppresses a longitudinal ringing mode.
7. **(Original)** An apparatus according to claim 1 wherein the damping material suppresses a lamb wave ringing mode.
8. **(Original)** An apparatus according to claim 1 wherein the microfabricated acoustic transducer operates at frequencies above 20 kHz.
- 9-18. **(Previously Withdrawn).**

19. **(Currently Amended)** A method for suppressing acoustic modes, the method comprising:
- providing a substrate having a topside and a backside;
 - forming a microfabricated acoustic transducer on the topside of the substrate; and
 - placing a damping material on the backside of the substrate, the damping material having an acoustic impedance substantially equal to that of the substrate and suppressing substrate acoustic modes.
20. **(Currently Amended)** The method of claim 19 wherein:
- the damping material is lossy; and has an
 - the acoustic impedance of the damping material that is similar to the acoustic impedance of the substrate that of silicon and is lossy.
21. **(Original)** The method of claim 20 further comprising forming electronic circuits in the substrate.
22. **(Currently Amended)** The method of claim 21 wherein the electronics circuits are in between the sensor transducer and the damping material.
23. **(Original)** The method of claim 19 wherein the substrate is a wafer.
24. **(Original)** The method of claim 19 wherein the damping material suppresses a longitudinal ringing mode.
25. **(Original)** The method of claim 19 wherein the damping material suppresses a lamb wave ringing mode.
26. **(Original)** The method of claim 19 further comprising operating the microfabricated acoustic transducer at frequencies above 20 kHz.
- 27-36. **(Previously Withdrawn).**